REMARKS/ARGUMENTS

In the Office Action, the Examiner rejected claims 1-25 under 35 U.S.C. 103(a) as being unpatentable over some combination of *Heddaya* et al. (US Pat. No. 6,205,481), *Ganesh* et al. (US Pat. No. 6,347,087), and *Dillon* (US Pat. No. 6,016,388). The rejections are fully traversed below. Reconsideration of the application is respectfully requested based on the following remarks.

Claims 1, 5-8, 10, 16-18, 20-23, and 25 have been amended to further clarify the subject matter regarded as the invention. It should be noted that independent claims 1, 16, 20, 21, 22, and 23 are believed to be patentable even without the amendments, but have been amended to facilitate prosecution of this application. Support for the amendments can be found on page 7, lines 3-5; page 10, lines 7-9; page 11, lines 15-17; page 12, lines 1-14; page 13, lines 19-21; and elsewhere in the specification. Accordingly, claims 1-25 remain pending in this application.

PATENTABILITY OF CLAIMS 1-25

Claim 1 relates to "[a] computer-implemented method for routing data traffic in a network having a plurality of network layers including an application layer." The method includes: "receiving the data traffic; selecting one of a plurality of routing options for the data traffic with reference to information *in* the application layer; and routing the data traffic according to the selected routing option." Claim 21 recites a similar limitation.

In contrast, *Ganesh* et al. does not teach or suggest routing with reference to information in the application layer. Instead, *Ganesh* et al. merely discloses a content-based forwarding logic for routing frames between nodes via a switching device. The content-based forwarding logic for routing frames is only based on information in the lower network layers (e.g., the contents of the frame). (See column 1, lines 6-10; column 6, lines 38-57) Specifically, "[f]ilters 81 (policies) within active groups monitor the window 80 to detect information located at a position in a frame determined by the filter offset value (frame word(s) of interest)." "The filters then generate an outcome depending upon their settings, and pass these outcomes to an expression 82, which combines them in a given way to produce a result. The result is an action to be taken to process the frame, such as to change its priority or add to or change its destination." (See column 6, lines 38-57; Fig. 4)

Although the Examiner stated in the Office Action that *Ganesh* et al. teaches "content based routing based on source and destination addresses, i.e., HTTP, SMB and DNS systems

(See Ganesh, col. 4, lines 1-53)," "HTTP, SMB and DNS for instance are well known to be Layer 7 information which provide standardized services to applications and provide interface to end-user processes," and "specifically states "any other layer header" may be used (See Ganesh, col. 3, lines 1-67)," *Ganesh* et al. still teaches that the routing decisions are based on information in the lower layers. To further elaborate, the content-based forwarding logic includes offset/mask forwarding filters. "Each filter guarantees the ability to match a 64-bit word placed on any bit boundary within a desired number of bytes such as the first 256 bytes of a frame, or within any L3 payload therein. Any bits of this word can be masked off so that only the remaining bits will determine the match result." (See column 7, lines 11-18) "An Offset Mask Filter works by indexing into either the raw (L2) frame or its L3 payload (if any) the number of words indicated by its offset count value. Once this start point is reached, the filter compares the words of the frame against its word comparand and mask values. If all of the unmasked bits match up then a filter match occurs." (See column 7, lines 23-30) In essence, *Ganesh* et al. merely teaches content-based routing with reference to information in the bits of the frame, which is provided (e.g., filtered out) in the lower network layers. That is, *Ganesh* et al. teaches content-based routing in reference to information in lower network layers, such as bits values in an Ethernet frame, as opposed to information in the Application Layer as claimed. As such, it is respectfully submitted that claims 1 and 21 are patently distinct from *Ganesh* et al. It is also respectfully submitted that claims 1 and 21 are patently distinct from the other cited art, such as *Heddaya* et al. and *Dillon*.

Claim 16 recites "[a] computer-implemented method for routing data traffic in a network which has been redirected to a network cache." The method includes: "receiving the data traffic with the network cache; selecting one of a plurality of routing options for the data traffic with reference to information about the data traffic *accessible by the network cache*; and routing the data traffic according to the selected routing option." Claim 22 recites a similar limitation as claim 16.

As mentioned above, *Ganesh* et al. merely teaches content-based routing in reference to information in the lower layers. In addition, *Ganesh* et al. relates to logic implemented in a LAN switch and does not discuss the notion of caching or the operation of caches. As such, the recited limitation that "information about the data traffic" be "*accessible by the network cache*" distinguishes claims 16 and 22 from *Ganesh* et al. Therefore, it is respectfully submitted that claims 16 and 22 are patently distinct from *Ganesh* et al. It is also respectfully submitted that claims 16 and 22 are patently distinct from the other cited art, such as *Heddaya* et al. and *Dillon*.

Claim 20 recites "[a] computer-implemented method for routing data traffic in a network having a plurality of layers including physical, data link, and network layers." The method includes: "receiving the data traffic; selecting one of a plurality of routing options for the data traffic with reference to a *type* of information *outside of the physical, data link, and network layers*; and routing the data traffic according to the selected routing option." Claim 23 recites a similar limitation.

Since *Ganesh* et al. merely teaches content-based routing in reference to information in the lower layers (e.g., physical, data link, and network layers), *Ganesh* et al. fails to teach or suggest routing data traffic with reference to information outside of the physical, data link, and network layers much less to a "type" (e.g., a MIME type) of information. Therefore, it is respectfully submitted that claims 20 and 23 are patently distinct from *Ganesh* et al. It is also respectfully submitted that claims 20 and 23 are patently distinct from the other cited art, such as *Heddaya* et al. and *Dillon*.

In addition, there is no suggestion or motivation to combine the cited art *Heddaya* et al. and *Ganesh* et al. This is because *Heddaya* et al. describes a caching protocol/system that looks at the network layer (by definition), e.g., destination address, and *Ganesh* et al. looks at bits in the frame "other than the destination address." (See Column 6, lines 15-16). Also, the routing scheme disclosed in *Ganesh* et al. "is entirely programmed in ASIC so that content-based forwarding/filtering is accomplished for every frame at wirespeed without any intervention from any microprocessor directly or indirectly connected to the ASIC." (See column 4, lines 1-5) That is, in order for the content-based routing of *Ganesh* et al. to be fast enough, it must be "entirely programmed in an ASIC." By contrast, *Heddaya* et al. describes a caching protocol/system that operates at the network and transport layers in software, which inherently involves intervening microprocessors. (See computers 12-2 along with cache servers 16-6 in Fig. 1; Fig. 2) Therefore, *Ganesh* et al. teaches away from combining it's routing scheme (link layer frame inspection) with *Heddaya* et al. caching protocol/system.

Another reason there is no motivation to combine the cited art *Heddaya* et al. and *Ganesh* et al. is because *Heddaya* et al. explicitly states as an advantage that the disclosed document caching system "does not need ... to redirect document requests." (See column 4, lines 49-54) As such, there would be no motivation to incorporate the routing scheme of *Ganesh* et al. to "redirect document requests" in the caching protocol/system of *Heddaya* et al. Therefore, claims 1, 16, 20, 21, 22, and 23 are further patentable for these reasons.

The Examiner's rejections of the dependent claims are respectfully traversed. However, to expedite prosecution, all of these claims will not be argued separately. Claims 2-15, 17-19, and 24-25 each depend either directly or indirectly from independent claims 1 or 16 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 1 or 16. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art.

For example, claim 5 recites "the method of claim 1 further comprising parsing the information in the application layer." That is, the operation of parsing the information is performed in the application layer. Clearly, this is patently distinct from the cited art.

SUMMARY

It is respectfully submitted that all pending claims are allowable and that this case is now in condition for allowance. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If any fees are due in connection with the filing of this Amendment, the Commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388 (Order No. CISCP139).

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

Desmund Gean
Reg. No. 52,937

BEYER WEAVER & THOMAS, LLP
P.O. Box 778
Berkeley, CA 94704-0778
Telephone: (510) 843-6200
Facsimile: (510) 843-6203